

REMARKS

The Office Action mailed January 21, 2010 has been reviewed and carefully considered. No new matter has been added.

Claim 1 has been amended, New Claim 26 has been added. Claims 1-6 and 26 are currently pending.

Figure 1 has been objected to for failing to include a legend such as "Prior Art" therein. Accordingly, please find an updated version of Figure labeled "Replacement Sheet" in the page header and including the legend "Prior Art". Withdrawal of the objection is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,570,923 to Saunders et al. (hereinafter "Saunders"). Claims 2 and 4-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Yoneyama et al., "Fast Dissolve Operations for MPEG Video Contents" (hereinafter "Yoneyama"). Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Yoneyama as applied to Claim 2, and further in view of Applicant's admitted prior art (AAPA). The rejections are respectfully traversed.

It is to be noted that the independent claim in the case is Claim 1. Moreover, as noted above, Claim 1 has been amended. Support for the amendment to Claim 1 may be found at least at page 11 line 31 to page 13, line 6 of the Applicant's specification.

It is respectfully asserted that Saunders does not teach or suggest the following limitations now recited in amended Claim 1:

a reference picture weighting applicator; and
a reference picture weighting factor unit in signal communication with the reference picture weighting applicator for selecting, based on one or more criterion, weighting factors corresponding to each of the fade-out start picture and the fade-in end picture, respectively, for coding the at least one cross-fade picture.

Against Claim 1, the Examiner has stated the following:

Saunders et al, in Figure 8, discloses the same video encoder for encoding video signal data for at least one cross-fade picture disposed temporally between a fade-out picture (Video A) and a fade-in picture (Video B), which are used as reference pictures for coding the at least one cross-fade picture as specified in claim 1 of the present invention, the encoder comprising a reference picture weighting applicator (120) and a reference picture weighting factor unit (110) in signal communication with the reference picture weighting applicator for assigning weighting factors corresponding to each of the fade-out start picture and the fade-in end picture, respectively, for coding the at least one cross-fade picture (col. 4 Lines 40-col. 5 Lines 25).

Thus, Figure 8 and column 4, line 50 to column 5, line 25 of Saunders has been cited against the above reproduced limitations of Claim 1. Moreover, the Examiner has equated element 120 of Figure 8 of Saunders to the reference picture weighting applicator recited in Claim 1, and has equated element 110 of Figure 8 of Saunders to the reference picture weighting factor unit recited in Claim 1. The Applicant respectfully disagrees with the Examiner's reading of Saunders.

Initially, we note that the encoder of Saunders is clearly not the same encoder as that shown in Figure 2 or Figure 3 of the instant application, noting that Figure 1 pertains to the prior art (see objection above). For example, we show a plurality of elements in the encoders of Figure 2 and Figure 3, while Saunders simply uses a single block with an "E" followed by a number, the "E" indicating an encoder and the number indicating which encoder as Saunders requires a plurality of encoders in order to perform a cross-fade (see, e.g., Saunders, Fig. 8). These elements are key to the invention as claimed and certainly not even hinted at by the disclosure of the "generic black box" encoder of Saunders.

Nonetheless, while the Examiner has equated element 120 in Figure 8 of Saunders to the reference picture weighting applicator recited in Claim 1, element 120 of Saunders is explicitly defined as a "video B & key signal SOURCE" (emphasis added). Thus, element 120 of Figure of Saunders is simply a source of one or more signals and is not disclosed as performing any other functions beyond simply supplying the indicated signals. Even though "[t]he key signal defines the relative proportions of video A and video B to be used for each pixel of the required output image" (Saunders, col. 5, lines 3-5), the key signal has already be

defined and is simply supplied by the "video B & key signal source" 120 and no selection is thus even needed to be made (nor can be made) by the "video B & key signal source" 120. Thus, it is clear the element 120 of Saunders differs both structurally (source versus selector) and functionally (supplying versus selecting) from the reference picture weighting factor unit recited in Claim 1. We note that element 110 of Figure 8 of Saunders is a mixer and does not select weighting factors, let alone based on one or more criterion.

In view of this difference, the invention of Saunders offers no adaptability (e.g., selecting based on one or more criterion as recited in Claim 1) in contrast to the subject matter of claim 1, which selects (and hence adapts) based on one or more criterion.

Thus, Saunders does not teach or suggest all of the above reproduced limitations of Claim 1.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Hence, Claim 1 is patentably distinct and non-obvious over Saunders for at least the reasons set forth above.

The failure of an asserted combination to teach or suggest each and every feature of a claim remains fatal to an obviousness rejection under 35 U.S.C. § 103. Section 2143.03 of the MPEP requires the "consideration" of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely "consider" each and every feature for this claim. Instead, the asserted combination of the patents must also teach or suggest *each and every claim feature*. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeal and Interferences has recently confirmed, a proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention - *including all its limitations* - with the teaching of the prior art." See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in original). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious" (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Thus, regarding the rejections under 35 U.S.C. 103(a) mentioned herein, it is respectfully asserted that the remaining references do not cure the deficiencies of Saunders, and are silent with respect to the above reproduced limitations of Claim 1 (noting that only Saunders was cited against Claim 1).

Hence, none of the references, either taken singly or in any combination, teach or suggest all the above reproduced limitations of Claim 1.

We note that any combination of Saunders with a reference that selects weighting factors would be in contravention to MPEP §2143.01 as such combination would essentially change the principle of operation of Saunders.

For example, as set forth in MPEP §2143.01:

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.” 270 F.2d at 813, 123 USPQ at 352.).

In this regard, Saunders strictly constrains the key signal to be a pre-determined signal that is simply received from either the “video B & key signal source” 120 or “from a different external source” (Saunders, col. 5, lines 1-3). Hence, Saunders does not select relative proportions of video A and video B, but only supplies the relative proportions, and any

reference that is combined with Saunders to include a selection of weighting factors by that reference would result in an improper combination under MPEP §2143.01.

Claims 2-6 directly or indirectly depend from Claim 1 and, thus, respectively include all the limitations of Claim 1. Accordingly, Claims 2-6 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 1.

Moreover, said dependent claims include patentable subject matter in and of themselves and are, thus, patentable distinct and non-obvious over the cited references in their own right. For example, Claim 3 explicitly recites “further comprising a reference picture store in signal communication with each of the reference picture weighting factor unit and the motion compensation unit for storing each of the fade-out start picture and the fade-in end picture.” In contrast, memory stores 130 of Figure 8 of Saunders is only connected to a controller and not to cited elements 110 and 120. Hence, the memory stores 130 of Figure 8 of Saunders is not connected to a reference picture weighting factor unit as recited in Claim 1. Further, since only compression parameters, the key signal, and a target output data rate (TBR) are input to the controller, clearly no reference pictures pass from the controller to the memory stores 130 of Figure 8 of Saunders. Thus, not only does the memory stores 130 of Figure 8 of Saunders not store reference pictures (contrary to the explicit limitations of Claim 1), the memory stores 130 are also missing an explicit recited connection to the reference picture weighting factor unit (also contrary to the explicit limitations of Claim 1). Hence, Saunders does not teach or suggest all the recited limitations of Claim 3. Moreover, the remaining references do not cure the deficiencies of Saunders, and are silent with respect to the above reproduced limitations of Claim 3. Hence, Claim 3 is patentably distinct and non-obvious over the cited references for at least the reasons set forth above.

Accordingly, reconsideration of the rejections is respectfully requested.

Moreover, as noted above, new Claim 26 has been added. Support for Claim 26 may be found at least at page 6, line 31 to page 7, line 30, Figure 2, page 7, line 31 to page 9, line 2, and Figure 3 of the Applicant's specification.

It is respectfully asserted that none of the cited references, either taken singly or in any combination, teach or suggest “wherein said video encoder comprises a single video encoder that is used to code the at least one cross-fade picture” as recited in Claim 26.

Rather, Saunders requires a plurality of encoders in order to perform a cross-fade (see, e.g., Saunders, col. 4, lines 56-57). Hence, Saunders does not teach or suggest all of the above reproduced limitations of Claim 26. Moreover, it is respectfully asserted that the remaining references do not cure the deficiencies of Saunders, and are silent with respect to the above reproduced limitations of Claim 26.

Hence, new Claim 26 is believed to be patentably distinct and non-obvious over the cited references for at least the reasons set forth above. Moreover, Claim 26 depends from Claim 1 and, thus, includes the limitations of Claim 1. Thus, Claim 26 is also patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to Claim 1.

In view of the foregoing, Applicant respectfully requests that the rejection of the claims set forth in the Office Action of January 21, 2010 be withdrawn, that pending Claims 1-6 and 26 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

Since new claim 26 was added, please charge applicant's Deposit Account No. 07-0832 a total of \$52 for the additional claim in excess of twenty. It is believed that no further additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application (beyond the \$52 charge explicitly approved above), they may be charged to applicant's Deposit Account No. 07-0832 also. Any overpayment of fees or charges unnecessarily paid may similarly be credited to applicant's Deposit Account No. 07-0832.

Respectfully submitted,

Date: March 15, 2010

By: /Guy Eriksen/
Guy Eriksen, Attorney for Applicant
Registration No.: 41,736

Patent Operations
Thomson Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312